

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

JUNIPER NETWORKS INC., et al.,

Plaintiffs,

v.

SWARM TECHNOLOGY LLC,

Defendant.

Case No. [3:20-cv-03137-JD](#)

**ORDER RE MOTION TO DISMISS**

In this declaratory judgment action, plaintiff Juniper Networks, Inc. and its wholly owned subsidiary, Apstra, Inc., (collectively, Juniper) seek a declaration of non-infringement of U.S. Patent No. 9,146,777 (the '777 patent), U.S. Patent No. 9,852,004 (the '004 patent), and U.S. Patent No. 10,592,275 (the '275 patent) against defendant and patent owner Swarm Technology LLC (Swarm). Dkt. No. 38 (first amended complaint); Dkt. No. 64-1 ('004 patent); Dkt. No. 64-2 ('275 patent); Dkt. No. 64-3 ('777 patent). Swarm filed counterclaims alleging that Juniper infringes the three patents. Dkt. No. 64. Juniper asks to dismiss the counterclaims on the grounds that all claims of the '777 patent, '004 patent, and '275 patent are directed to patent-ineligible subject matter under 35 U.S.C. § 101. Dkt. No. 75. In light of “the sources properly considered on a motion to dismiss, such as the complaint, the patent, and materials subject to judicial notice,” *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1128 (Fed. Cir. 2018), the counterclaims are dismissed under Section 101 and *Alice Corp. Pty. Ltd. v. CLS Bank International*, 573 U.S. 208 (2014), with leave to amend.

**I. THE '004 PATENT AND '275 PATENT**

In an unrelated case pending in the District of Arizona, the '004 patent and '275 patent were determined to be invalid for lack of patent-eligible subject matter by. *Swarm Tech. LLC v.*

1 *Amazon.com, Inc.*, 561 F. Supp. 3d 861 (D. Ariz. 2021). The court dismissed Swarm’s  
 2 infringement claims based on the patents, and stated that Swarm could file a motion for leave to  
 3 file an amended complaint, *id.* at 869, which Swarm did on October 20, 2021. *Swarm Tech. LLC*  
 4 *v. Amazon.com, Inc.*, No. 2:21-cv-438-DWL, Dkt. No. 66 (D. Ariz.). The case was reassigned to a  
 5 different judge in the District of Arizona, and the motion for leave to file an amended complaint is  
 6 pending. *Id.* at Dkt. No. 78.

7 Swarm in effect invites the Court to disregard the invalidation of the ’004 and ’275 patents,  
 8 and allow the counterclaims based on them to proceed. The request is ill taken. Strictly speaking,  
 9 this is not a matter of preclusion. As a general principal, “once the claims of a patent are held  
 10 invalid in a suit involving one alleged infringer, and unrelated party who is sued for infringement  
 11 of those claims may reap the benefit of the invalidity decision under principles of collateral  
 12 estoppel.” *Soverain Software LLC v. Victoria’s Secret Direct Brand Mgmt., LLC*, 778 F.3d 1311,  
 13 1315 (Fed. Cir. 2015). But collateral estoppel does not apply absent a final judgment, and the  
 14 invalidation order in the District of Arizona is not final yet. *See Reyn’s Pasta Bella, LLC v. Visa*  
 15 *USA, Inc.*, 442 F.3d 741, 746 (9th Cir. 2006); *Slip Track Sys., Inc. v. Metal-Lite, Inc.*, 304 F.3d  
 16 1256, 1262 (Fed. Cir. 2002) (regional circuit law applies for collateral estoppel analysis). Even  
 17 so, good reasons weigh against ignoring the order, as Swarm urges. Swarm has ample opportunity  
 18 to respond to the order by seeking leave to amend its complaint, which it has already done,  
 19 requesting reconsideration from the District of Arizona, or appealing to the Federal Circuit. A  
 20 lateral appeal to a sister district court is not appropriate, or consistent with the fair and efficient  
 21 administration of justice.

22 Consequently, the counterclaims based on the ’004 and ’275 patents are dismissed. The  
 23 dismissal is without prejudice, and Swarm may request leave to re-allege them as developments in  
 24 the District of Arizona or on appeal warrant.

## 25 **II. THE ’777 PATENT**

26 The ’777 patent was issued on September 29, 2015, and is assigned to Swarm. Dkt. No.  
 27 64-3. The patent is directed to a “method and apparatus for processing information in parallel  
 28 us[ing] autonomous computer processing cells to perform tasks needed by a central processing

unit” (CPU). *Id.* at Abstract. The autonomous computer processing units are called “solidarity cells,” which can be “general- or special-purpose processor[s].” *Id.* at 1:59-66. The solidarity cells also have “agents” which are “software modules” that can be dispatched to a task pool, populated by the CPU, to pick up tasks for the solidarity cell to complete. *Id.* at 2:1-18. The patent states that this approach solves two problems in typical multiprocessing frameworks: that “a significant amount of the CPU’s processing time is consumed by managing the co-processing tasks,” and that “a co-processor will remain idle as it waits for a thread to be assigned to it by the CPU.” *Id.* at 1:31-45.

For the eligibility dispute, the parties do not address whether Claim 1 is representative, but their treatment of the claims suggests that Claim 1 should be treated as such, as neither party argues that the other claims of the ’777 patent contain any significant limitations other than those included in Claim 1. *See Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1352 (Fed. Cir. 2016). Consequently, the Court will treat Claim 1 as representative.

Claim 1 recites:

1. An apparatus for parallel processing of a large computing requirement, the apparatus comprising:
  - a central processing unit (“CPU”);
  - a task pool in electronic communication with the CPU; and
  - a first solidarity cell in electronic communication with the task pool, the first solidarity cell comprising a first agent configured to proactively retrieve, from the task pool, without requiring an instruction from the CPU, a matching task for the solidarity cell to process;
 wherein the CPU populates the task pool by dividing the requirement into one or more threads and placing the threads in the task pool, each thread comprising one or more tasks, and the matching task being one of the tasks;
 wherein each task comprises a descriptor, the descriptor containing at least:
  - a function to be executed; and
  - a memory location of data upon which the function is to be executed;
 wherein the first agent is a data frame comprising: a source address, a destination address and a payload;
 wherein the first agent retrieves the matching task by:
  - being dispatched by the first solidarity cell to the task pool, during which the source address is the first solidarity cell's address, the destination address is the task pool's address, and the payload comprises a list of functions the first solidarity cell is configured to perform;
  - searching the task pool for a task that is ready to be processed

and has a function that the first solidarity cell can perform;  
and  
returning to the first solidarity cell, during which the source  
address is the task pool's address, the destination address  
is the first solidarity cell's address, and the payload  
comprises the descriptor of the matching task.

Dkt. No. 64-3 at 7:41-8:8.

#### A. Legal Standards

Rule 8(a)(2) of the Federal Rules of Civil Procedure requires the complaint to provide “a short and plain statement of the claim showing that the pleader is entitled to relief.” To meet that rule and survive a Rule 12(b)(6) motion to dismiss, a plaintiff must allege “enough facts to state a claim to relief that is plausible on its face.” *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007). This does not impose a probability requirement at the pleading stage. It simply calls for enough “factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged.” *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (citing *Twombly*, 550 U.S. at 556). The plausibility analysis is “context-specific” and not only invites, but “requires the reviewing court to draw on its judicial experience and common sense.” *Id.* at 679.

The Federal Circuit has “repeatedly recognized that in many cases it is possible and proper to determine patent eligibility under 35 U.S.C. § 101 on a Rule 12(b)(6) motion. In many cases, too, evaluation of a patent claim’s subject matter eligibility under § 101 can proceed even before a formal claim construction.” *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1373-74 (Fed. Cir. 2016) (citations omitted); *see also Aatrix*, 882 F.3d at 1125. Even so, the question of eligibility may be determined at the pleadings stage “only when there are no factual allegations that, taken as true, prevent resolving the eligibility question as a matter of law.” *Aatrix*, 882 F.3d at 1125 (citing *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1097 (Fed. Cir. 2016)); *see also Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1320 (Fed. Cir. 2019). This can be particularly true for the element of an inventive concept, which may raise a question of fact that can be resolved in a motion to dismiss only if the answer may be found in the complaint, the patent, and matters subject to judicial notice. *Aatrix*, 882 F.3d at 1128.

To be sure, a patentee cannot avoid dismissal for ineligible claims purely on the basis of conclusory or generalized statements, and fanciful or exaggerated allegations that later prove to be

1 unsupported may lead to fee shifting or other sanctions. *See Cellspin*, 927 F.3d at 1317 (“While  
 2 we do not read *Aatrix* to say that any allegation about inventiveness, wholly divorced from the  
 3 claims or the specification, defeats a motion to dismiss, plausible and specific factual allegations  
 4 that aspects of the claims are inventive are sufficient.”); *Berkheimer v. HP Inc.*, 890 F.3d 1369,  
 5 1373 (Fed. Cir. 2018) (Moore, J., concurring in denial of rehearing en banc) (“[I]f the allegations  
 6 in the complaint about the invention as claimed ultimately lack evidentiary support or if the case is  
 7 exceptional, district courts can award attorneys’ fees to the accused infringer under either Rule 11  
 8 or [35 U.S.C.] § 285 to compensate the accused infringer for any additional litigation costs it  
 9 incurs.”). The inquiry in a motion to dismiss is typically confined to the contents of the complaint  
 10 and the plain words of the patent that is incorporated by reference. To the extent claim  
 11 construction issues might arise, the Court will adopt the patentee’s proposed constructions.  
 12 *Aatrix*, 882 F.3d at 1125; *IPLearn-Focus, LLC v. Microsoft Corp.*, 2015 WL 4192092, at \*3 (N.D.  
 13 Cal. July 10, 2015), *aff’d*, 667 F. App’x 773 (Fed. Cir. July 11, 2016).

14 Swarm does not categorically object to taking up patent eligibility in a pleadings motion,  
 15 but says that “factual disputes” preclude dismissal. *See* Dkt. No. 76 at 12. These ostensible  
 16 disputes are based on wholly conclusory allegations in the counterclaims, and so are not a bar to  
 17 moving forward. Neither side has called for claim construction as part of the eligibility inquiry,  
 18 and no construction disagreements were identified in the briefs or arguments. Consequently, the  
 19 Section 101 inquiry may properly be made at this stage of the case.

20 For the merits of the Section 101 question, the scope of patentable subject matter includes  
 21 “any new and useful process, machine, manufacture, or composition of matter, or any new and  
 22 useful improvement thereof.” 35 U.S.C. § 101. The “laws of nature, physical phenomena, and  
 23 abstract ideas” are “specific exceptions to § 101’s broad patent-eligibility principles.” *Bilski v.*  
 24 *Kappos*, 561 U.S. 593, 601 (2010) (citation omitted). These exclusions are intended to guard  
 25 against undue preemption of innovation and invention. *Alice*, 573 U.S. at 216 (citing U.S. Const.,  
 26 Art. I, § 8, cl. 8). The Court must “distinguish between patents that claim the ‘buildin[g] block[s]’  
 27 of human ingenuity and those that integrate the building blocks into something more,” because  
 28

1 overbroad patent protection “would risk disproportionately tying up the use of the underlying  
2 ideas.” *Id.* at 217 (alterations in original) (cleaned up).

3 In *Alice*, the Supreme Court set out a two-part test for Section 101. First, the Court  
4 determines “whether the claims at issue are directed to a patent-ineligible concept” such as an  
5 abstract idea, law of nature or natural phenomenon. *Id.* at 218. It is often “sufficient to compare  
6 claims at issue to those claims already found to be directed to an abstract idea in previous cases”  
7 for purposes of the step one analysis. *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed.  
8 Cir. 2016); *see also Alice*, 573 U.S. at 221 (“In any event, we need not labor to delimit the precise  
9 contours of the ‘abstract ideas’ category in this case. It is enough to recognize that there is no  
10 meaningful distinction between the concept of risk hedging in *Bilski* and the concept of  
11 intermediated settlement at issue here.”). In addition, the Court may take into account undisputed  
12 facts about well-known practices that have stood the test of time. *See Yu v. Apple, Inc.*, 1 F.4th  
13 1040, 1045-46 (Fed. Cir. 2021).

14 The “purely functional nature of the claim confirms [whether the patent] is directed to an  
15 abstract idea, not to a concrete embodiment of that idea.” *Affinity Labs of Tex., LLC v.*  
16 *Amazon.com, Inc.*, 838 F.3d 1266, 1269 (Fed. Cir. 2016); *see also SAP Am., Inc. v. InvestPic,*  
17 *LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018) (describing “abstract” as turning on “the specificity  
18 required to transform a claim from one claiming only a result to one claiming a way of achieving  
19 it”). Oversimplifying the claims should be avoided because “[a]t some level, ‘all inventions . . .  
20 embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.’”  
21 *Alice*, 573 U.S. at 217 (second alteration in original) (citation omitted). For the technology at  
22 stake here, the relevant inquiry is “whether the claims are directed to an improvement to computer  
23 functionality versus being directed to an abstract idea.” *Enfish*, 822 F.3d at 1335; *see also BSG*  
24 *Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1287 (Fed. Cir. 2018) (“For an application of an  
25 abstract idea to satisfy step one, the claim’s focus must be on something other than the abstract  
26 idea itself.”).

27 If a patent is directed to a patent-ineligible concept, the second step in *Alice* is to look for  
28 an “‘inventive concept’ -- i.e., an element or combination of elements that is sufficient to ensure

that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Alice*, 573 U.S. at 217-18 (alteration in original) (internal quotation marks and citation omitted). This step asks, “[w]hat else is there in the claims before us?” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 78 (2012). The answer must include something “significantly more” than the abstract idea itself. *BSG Tech*, 899 F.3d at 1290. “It is well-settled that mere recitation of concrete, tangible components is insufficient to confer patent eligibility to an otherwise abstract idea. Rather, the components must involve more than performance of ‘well-understood, routine, conventional activit[ies] previously known to the industry.’” *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016) (alteration in original) (quoting *Alice*, 573 U.S. at 225). In addition, merely reducing an abstract concept to a particular technical platform is not enough to provide the inventive element needed to support a patent. *Elec. Power Grp.*, 830 F.3d at 1354; *TriDim Innovations LLC v. Amazon.com, Inc.*, 207 F. Supp. 3d 1073, 1080 (N.D. Cal. 2016). “If a claim’s only ‘inventive concept’ is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea.” *BSG Tech*, 899 F.3d at 1290-91.

## **B. The Claimed Invention Is Not Patentable**

Because all three asserted patents in this case are related, with the ’275 and ’004 patents being continuations of the ’777 patent, the parties have largely treated the patents as a group. As a result, the parties make very few arguments that specifically address the ’777 patent.

### **1. Claim 1 Is Directed To An Abstract Idea**

Claim 1 of the ’777 patent recites an apparatus comprised of a CPU, a task pool, and a solidarity cell, where the CPU populates the task pool with tasks, and the solidarity cell communicates with the task pool to receive tasks that it is suited to perform. Dkt. No. 64-3 at 7:41-8:8. Communication between the solidarity cell and task pool is accomplished using an “agent,” which is a “software module that searches the task pool for available tasks that match the cell’s instruction set architecture.” *Id.* at 2:10-14, 7:59-67. The ’777 patent teaches that this apparatus solves two problems from traditional multiprocessing frameworks: (1) the CPU’s



1 processing time is not consumed by managing the tasks, and (2) co-processors are not idle while  
2 they wait for the CPU to assign tasks. *Id.* at 1:31-45.

3 The language of Claim 1 and the specification make it clear that the claim is drawn to the  
4 abstract idea of retrieving and completing tasks from a task pool. Processes are directed to an  
5 abstract idea where they are “the sort of process that ‘can be performed in the human mind, or by a  
6 human using a pen and paper.’” *Ericsson Inc. v. TLC Commc’n Tech. Holdings Ltd.*, 955 F.3d  
7 1317, 1327 (Fed. Cir. 2020) (quoting *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366,  
8 1372 (Fed. Cir. 2011)). Juniper analogizes the process in Claim 1 to a scrum board, which is a  
9 tool frequently used in software development to keep track of tasks that need to be done, tasks in  
10 progress, and completed tasks. Dkt. No. 75 at 10. Scrum boards are an apt analogy, but the  
11 principles of allocating tasks among workers and workers proactively seeking more tasks upon  
12 completion without direction from a project manager has been practiced throughout history and  
13 across industries. For example, a group of attorneys conducting document review might have a  
14 client collect all the relevant documents into a pool where each member of the team can retrieve  
15 documents, review those documents, and then proactively return to retrieve additional documents  
16 for review. Or a community might come together to raise supplies for a school by generating a list  
17 of needed supplies and having community members choose items from the list to purchase and  
18 donate. Countless other examples come to mind. Such a “fundamental [and] long prevalent”  
19 practice is a quintessential abstract idea. *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d  
20 1307, 1314 (Fed. Cir. 2016) (quoting *Alice*, 573 U.S. at 219).

21 Swarm says that the ’777 patent is not directed to an abstract idea because it is directed to  
22 an improvement in how computers operate and computer efficiency. Dkt. No. 76 at 7; *see Enfish,*  
23 *LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335-36 (Fed. Cir. 2016). But “[t]he abstract idea here is  
24 not meaningfully different from the ideas found to be abstract in other cases before the Supreme  
25 Court and [the Federal Circuit] involving methods of organizing human activity.” *Intellectual*  
26 *Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367 (Fed. Cir. 2015).

27 Swarm analogizes its claims to those in *Hybrid Audio, LLC v. Asus Computer*  
28 *International*, where this Court held that claims directed to processing audio signals more



1 accurately and efficiently were not directed to an abstract idea because they were a specific  
 2 improvement to the way computers operate. Dkt. No. 76 at 7; *Hybrid Audio, LLC v. Asus*  
 3 *Computer Int'l*, No. 17-cv-5947-JD, 2019 WL 3037540, at \*5 (N.D. Cal. Jul. 11, 2019). But the  
 4 Court's recent opinion in *Broadcom Corp. v. Netflix Inc.* is a more germane comparison. *See*  
 5 *Broadcom Corp. v. Netflix Inc.*, --- F. Supp. 3d ----, No. 20-cv-4677-JD, 2022 WL 1105073, at \*4-  
 6 5 (N.D. Cal. Apr. 13, 2022).

7 The claims at issue in *Broadcom* involved a method for allocating tasks across servers,  
 8 which was merely an implementation of a project management process performed by humans  
 9 across history. *Id.* at \*4. The '777 patent is similarly drawn to project management technique that  
 10 has individual members proactively retrieve and perform tasks from a task pool until all tasks are  
 11 completed. In contrast, the patent in *Hybrid Audio* claimed a method that improved computer  
 12 operation and eliminated the need for specialized hardware, improving the quality of audio that  
 13 could be achieved by ordinary computers. *Hybrid Audio*, 2019 WL 3037540, at \*5. Nothing  
 14 similar is present here.

15 Swarm says that the '777 patent teaches a way to reconfigure computer systems to function  
 16 more efficiently, Dkt. No. 76 at 8-9, but Swarm does not point to a specific improvement to  
 17 computer technology identified in the '777 patent. Instead, Swarm quotes language from the  
 18 patent that the system "may be implemented retroactively on any computer or computer network  
 19 having an operating system that may be modified or otherwise configured to implement the  
 20 functionality described." *Id.*; *see also* Dkt. No. 64-3 at 3:20-24. This falls short of teaching a  
 21 specific improvement to computer technology, instead simply reconfiguring traditional computer  
 22 networks to operate as claimed in the '777 patent. To the extent that Swarm points to the  
 23 "monolithic integrated circuit" as an element that is non-abstract, that element is limited to the  
 24 '004 and '275 patents and is not present in any claims of the '777 patent.

## 25 2. Claim 1 Lacks an Inventive Concept

26 Turning to step two, Claim 1 "does not include an inventive concept sufficient to transform  
 27 the claimed abstract idea into a patent-eligible invention." *Yu*, 1 F.4th at 1045. "[A]n inventive  
 28 concept must be evident in the claims." *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*,

874 F.3d 1329, 1338 (Fed. Cir. 2017). Claim 1 of the '777 patent recites a conventional ordering of functions: first having a CPU generate a tasks that are transferred to a task pool so that co-processors, or “solidarity cells,” can retrieve the tasks and complete them. Dkt. No. 64-3 at 7:41-8:8. Further, the specification of the '777 patent confirms that the system is performed on generic computer networks, stating that the system may be implemented “on any computer or computer network.” *Id.* at 3:20-24. Claim 1 simply recites ordinary steps, performed in a conventional order, on conventional computer technology. *See, e.g., Two-Way Media*, 874 F.3d at 1339.

Swarm’s says that its claim represents an inventive concept, listing out seven elements that Swarm believes were not well-understood, routine, or conventional. Dkt. No. 76 at 11-12. Swarm does not support this with any citations to the specification of the '777 patent or to any allegations in the counterclaims, conclusory or otherwise, that support its position. *Id.* at 12. Swarm’s brief is entirely devoid of any explanation for how these seven elements were not well-understood, routine, or conventional.

The counterclaims themselves underscore the lack of plausible facts on this score. The counterclaims merely state that each element is more than just “well-understood, routine, and conventional” steps known in the industry at the time. *See, e.g.,* Dkt. No. 64 ¶ 226. The claims are based purely on citations to the specification of the '777 patent that reiterates the function of the claim element, without explaining how such elements are unconventional. *Id.*; *see also Broadcom*, --- F.3d at ----, 2022 WL 1105073, at \*5.

Swarm’s suggestion that all of this should be deferred because of factual disputes is misdirected. Swarm says that “it is not required to prove that its inventive concepts are unconventional,” only to “properly allege that the claims recite more than well-understood, routine activities.” Dkt. No. 76 at 13. That is precisely where Swarm dropped the ball. It did not plausibly allege, based on non-conclusory and factual statements, that the '777 patent embodies an inventive concept. The conclusory allegations in the counterclaims will not do. *See Cellspin*, 927 F.3d at 1317; *Linquet Techs., Inc. v. Tile, Inc.*, 559 F. Supp. 3d 1101, 1110 (N.D. Cal. 2021).

**CONCLUSION**

Because the '777 patent is directed to an abstract idea and lacks an inventive concept, the counterclaims are dismissed. In light of the plain language of the claims in the patent, the Court has some doubt that Swarm can amend around this problem. Even so, Swarm may file amended counterclaims by August 15, 2022. Failure to meet this deadline will result in dismissal with prejudice under Rule 41(b).

**IT IS SO ORDERED.**

Dated: August 1, 2022



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JAMES DONATO  
United States District Judge